

A heat treatment apparatus enables a rapid temperature rise of an object to be processed while giving an excellent economical efficiency. A heating unit heats an object to be heated by irradiating a light onto the object. A plurality of lamps are provided in a lamp house. The lamps include at least one first lamp and a plurality of second lamps each having an irradiation area smaller than that of the first lamp. The lamp house has a first lamp accommodation part at a center thereof and a second lamp accommodation part surrounding the first lamp accommodation part so that the first lamp accommodation part accommodates the first lamp and the second lamp accommodation part accommodates the second lamps.

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